

Notice of Allowability

Application No.

10/038,661

Examiner

Eric B. Compton

Applicant(s)

MORI ET AL.

Art Unit

3726

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed April 5, 2004.
2. ☒ The allowed claim(s) is/are 10 and 11.
3. ☒ The drawings filed on 08 January 2002 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/504,718.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Robert Carpenter on June 3, 2004.

The application has been amended as follows:

The title of the invention had been replaced by: --Method of Producing a Sintered Oil Retaining Bearing--.

In the Specification, page 1, the first sentence beginning at the first line has been replaced by: ---This is a Division of Application No. 09/504,718 filed February 16, 2000, now U.S. Pat. 6,357,920. The disclosure of the prior application is hereby incorporated by reference herein in its entirety.—

In the Specification, page 6, last line, "DVC-ROM" has been changed to --DVD-ROM--.

In claim 10, line 10 (second to last line), the remaining text of the claim immediately following after "surface openings" has replaced by: --is ensured by conducting rotary sizing such that the proportion of the surface area occupied by the surface openings to the total bearing surface is 10% or less.--

Claim 11 has been deleted.

Remarks

1. The title of the invention was changed to better reflect the invention of this divisional application. The claim of priority was update to reflect the issuance of the parent application. The specification was timely amended to include the claim of priority as indicated in Transmittal Sheet dated January 8, 2002. The change to the specification regarding --DVD-ROM--was made to correct a minor typographical error.
2. Claim 11 was canceled and its subject matter incorporated into claim 10, in order to overcome a 112, second paragraph issue, relating to a gap between the necessary structural connections. See MPEP § 2172.01. According to Applicant's disclosure it is the rotary sizing step that ensures the proportion of surface area occupied by surface openings is 10% or less. Specification, pages 18 & 20, tables (TP1 & TP2). Thus, claim 10 was amended as such.
3. Applicant's arguments filed April 5, 2004, ("Response") have been found persuasive. The Matsukawa and Mori references do not specifically disclose a method of producing a sintered oil retaining bearing "wherein the proportion of the surface area

occupied by the surface openings is ensured by conducting rotary sizing such that the proportion of the surface area occupied by the surface openings to the total bearing surface is 10% or less," in combination with the other claimed subject matter. See Response, pages 4-5. While Mori discloses the porosity of the bearing, it discloses the surface porosity for the concave portion is in the range of 0 to 10% and surface porosity for the convex portions is in the range of 5 to 25 %. Mori, Col. 5, lines 48-51. These ranges were optimized for the design of the bearing of Mori having concave and convex portions. Mori, Cols. 5-6, lines 65-15. Thus, the results achieved by Applicant are new and unexpected for Applicant's bearing having a cylindrical body. Response, page 5.

A JPO English Machine translation of Matsukawa, reveals the use of sizing finishing to dimension correct the outer diameter of a bore in the prior art. Section [0033]. The reference also notes that the use of the translation core rod alone alleviates the need for post processing. Section [0065]. Furthermore, the reference seems to disclose that further processing may result in a pore that is too small to permit oil to effectively pass. *Id.* Thus, it would seem that Matsukawa teaches away from Applicant's invention. Applicant clearly discloses that the compacting with moving core rod and subsequent rotary sizing (e.g., TP2, having a surface porosity of 8 to 10%) is superior to compacting with moving core rod alone (e.g., TP1, having a surface porosity 15 to 20%). Specification, pages 18 & 20, tables.

Art Unit: 3726

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric B. Compton whose telephone number is (703) 305-0240. The examiner can normally be reached on M-F, 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter B. Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Eric Compton
Patent Examiner
A/U 3726